

PATENT CLAIMS

1. Resonance tag for applying to a data medium provided with a metallization, such as a CD, a DVD, or a MO, and for enabling and/or improving its remote electromagnetic identification with a frequency in the RF range, said resonance tag having an external winding as part of an electric oscillation circuit, characterized in that the outer winding is led essentially along the outer margin of the data medium.

2. Resonance tag per claim 1, characterized in that it also has at least one inner winding as part of the electrical oscillation circuit, and between the outer and the at least one inner winding there is left a rather large interval, preferably at least corresponding to around half of the radius of the outer winding.

3. Resonance tag per claim 2, characterized in that it has two inner windings close together.

4. Resonance tag per one of claims 1-3, characterized in that it has two mutually overlapping capacitor plates as part of the electrical oscillatory circuit in the interval region between the outer and the at least one inner winding.

5. Resonance tag per one of claims 1-4, characterized in that it is provided with a semiconductor chip, in which specific information regarding the particular data medium can be or is stored, and which semiconductor chip can be supplied with electric energy via the oscillatory circuit and can receive and transmit electromagnetic signals.

6. Resonance tag per one of claims 1-5, characterized in that it has an electrically insulating substrate surface, on which the mentioned winding(s) and/or the capacitor plates are configured as conductor tracks and/or the semiconductor chip is mounted.

7. Resonance tag per claim 1, characterized in that the substrate is transparent.

8. Resonance tag per one of claims 1-7, characterized in that it is in the shape of a ring, especially a circular ring.

9. Resonance tag per one of claims 1-8, characterized in that its oscillatory circuit is tuned to a frequency in the range between 10 MHz and 20 MHz, but especially to 13.56 MHz.

10. Resonance tag per one of claims 1-9, characterized in that it has means of lessening the influence of stray capacitances originating in the article on its resonance frequency.

11. Use of the resonance tag per one of claims 1-10, together with an additional resonance tag with its own oscillatory circuit in mutual electromagnetic coupling on the same data medium.

12. Use per claim 11, characterized in that the additional resonance tag is arranged completely inside the winding(s) of the resonance tag per one of claims 1-10 and especially it is concentric to it.

13. Use per one of claims 11 or 12, characterized in that the oscillatory circuits of the two resonance tags are tuned to the same resonance frequency at least on the data medium.

14. Use per one of claims 11-13, characterized in that the additional resonance tag is provided with a semiconductor chip, in which specific information regarding the particular data medium can be or is stored, and which semiconductor chip can be supplied with electric energy via the oscillatory circuit of the additional resonance tag and can receive and transmit electromagnetic signals.

15. Use per one of claims 1-9, characterized in that it has shielding surfaces.

16. Use of a resonance tag per claim 15 together with an additional resonance tag with its own oscillatory circuit on the same data medium, wherein the additional resonance tag is provided with a semiconductor chip, in which specific information regarding the particular data medium can be or is stored, and which semiconductor chip can be supplied with electric energy via the oscillatory circuit of the additional resonance tag when the additional resonance tag is used alone, and can receive and transmit electromagnetic signals, while the shielding surfaces of the resonance tag shield the oscillatory circuit of the additional resonance tag against receiving and transmitting of electric fields, and wherein the oscillatory circuit of the resonance tag is galvanically and/or capacitively coupled with the semiconductor chip of the additional resonance tag.

17. Use per claim 16, characterized in that the resonance tag and the additional resonance tag are arranged concentrically to each other with partial overlapping.